

Water Quality Report 2022

Your water is routinely tested for about 90 different substances to ensure the water is of the highest quality. This report lists the substances that were detected during 2022 and includes details about where your water comes from. For more information about your water, contact Lori Rigby at (760) 435-5912.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse a la ciudad de Oceanside a (760) 435-5912 para asistirlo en español

Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791. The City of Oceanside is committed to providing all customers with safe and reliable drinking water





Oceanside's Water Sources

The City of Oceanside (City) has five sources of drinking water. One source of water supply is imported water that is purchased untreated from the San Diego County Water Authority (SDCWA). This raw water is then treated at Oceanside's Robert A. Weese (Weese) water treatment plant. This facility filters and disinfects water from lakes and rivers, supplying about 80% of the drinking water used in Oceanside. The second source is treated drinking water purchased directly from the SDCWA which is blended with water from the Carlsbad Desalination Plant (CDP); this is about 10% of Oceanside's water supply. The remaining 10% of water supply comes from Oceanside's Mission Basin Groundwater Purification Facility (**MBGPF**). This facility treats brackish groundwater from wells located in the San Luis Rey River valley. The groundwater is purified by reverse osmosis and then disinfected.

Approximately 90% of the water we use in Oceanside is imported from hundreds of miles away. This is surface water from lakes and rivers in Northern California and the Colorado River Basin. The **Metropolitan Water District (MWD)** imports this water to Southern California via a 242-milelong aqueduct that carries Colorado River water from Lake Havasu, and a 444-mile-long aqueduct bringing water from the Sacramento-San Joaquin Delta. Both aqueducts terminate in Lake Skinner in Riverside County, where these waters are combined. The SDCWA purchases this imported water from MWD and distributes it to water agencies throughout San Diego County, including the City of Oceanside.



The R.A. Weese Water Treatment Plant is maintained and operated by highly trained and certified individuals.



Imported water travels hundreds of miles away from the Colorado River and Northern California.



The Mission Basin Groundwater Purification Facility uses reverse osmosis to treat local brackish groundwater extracted from the Mission Basin Aquifer.

Pure Water Oceanside (PWO) purifies recycled water treated at the San Luis Rey Water Reclamation Facility. The recycled water is purified by undergoing a state-of-the-art water purification process including filtration, reverse osmosis and ultraviolet light with advanced oxidation. The purified water is then injected into the groundwater aquifer, extracted and treated again at MBGPF prior to being distributed as drinking water. Since PWO is not directly introduced into the water distribution system, its water quality data is reflected by MBGPF which directly enters the system. For information about the City's water, visit **www.ci.oceanside.ca.us/government/water-utilities**.



Source Water Assessment

In December 2002, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A summary of the assessment can be obtained by contacting MWD by phone at (213) 217-5696. The CDP completed a source water assessment (Watershed Sanitary Survey) in August 2005. The survey was performed to investigate potential contaminant sources in the Pacific Ocean in the vicinity of the



intake structure and in the watershed of the Agua Hedionda Lagoon. The potential contaminant sources evaluated in the Watershed Sanitary Survey are not likely to impact the water quality at the desalination plant. A summary of the assessment can be obtained by contacting CDP at (702) 606-8742.

Ground Water Assessment

An assessment of the current groundwater sources for the City was completed in February 2002. The sources are considered most vulnerable to contamination from the following activities: sewer collections and/or agricultural/irrigation wells. A copy of the complete assessment is available at the City of Oceanside Water Utilities Department at 300 North Coast Highway in Oceanside. You may request a summary of the assessment by contacting (760) 435-5800.

Contaminants in Drinking Water

To ensure tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by contacting the USEPA's Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater.

Backflow Program Citation 05-14-23C-006

The City received a citation from the Division of Drinking Water (DDW) for the City's backflow testing program. The citation was received for failure to require annual testing and maintenance of backflow devices from 2009-2022.

A robust backflow program is important because proper testing and maintenance of backflow devices protects the City's drinking water from contamination caused by backflow. Backflow is any unwanted flow of used or non-potable water or other substances from any domestic, industrial or institutional piping system back into the potable water distribution system.

The City is working collaboratively with DDW to enhance our backflow program. This includes assigning additional staff to support the program and increased monitoring, reporting and enforcement activities. All drinking water samples are compliant with State and Federal Standards. There has been no indication of health impacts or contaminant detections due to the backflow testing program.

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2022 Report of Detected Compounds



			PHG (MCLG) [MRDLG]	State DLR	Range Average		S	ource Wate	ers		
	Unit	MCL [MRDL]				R.A. Weese surface water	MBGPF ground water	SDCWA surface water	MWD surface water	Carlsbad Desalination Plant	Sources in Drinking Water
		KING W	ATER S			WS) Ma	ndatory H	lealth-rel	ated Stan	dards	
Combined Filter											
Effluent					Highest	0.18	NA	0.03	0.05	0.05	
Turbidity (a)	NTU	TT=1 NTU	NA	NA	%<0.3 NTU	100	NA	100	100	100	Soil runoff.
INORGAI	NIC										
					Range	0.021 - 0.089	NA	ND - 0.22	ND - 0.23	ND	Erosion of natural deposits; residue from surface
Aluminum (b)	mg/L	1	0.6	0.05	Average	0.046	ND	0.07	0.113	ND	water treatment process
Amonio		10	0.004	2	Range	NA 0.63	NA ND	NA 2.3	ND ND	ND ND	Erosion of natural deposits; runoff from
Arsenic	µg/L	10	0.004	2	Average	0.63 NA	ND	2.3 NA	ND	ND	orchards; glass and electronics production wastes Discharges of oil drilling wastes and from metal
Barium	mg/L	1	2	0.1	Range Average	0.086	0.036	NA ND	ND ND	ND	refineries; erosion of natural deposits.
Fluoride					Range	0.2 - 0.4	NA	0.2 - 0.4	0.2 - 0.4	0.7 - 0.9	Erosion of natural deposits; water additive that promotes
Natural	mg/L	2	1	0.1	Average	0.3	0.1	0.3	0.3	0.8	strong teeth; discharge from fertilizer and aluminum factories
Fluoride (c)			Optim	al Contr	ol Range	NA	NA	0.5 - 0.7	0.6 - 0.8	ND - 0.8	Erosion of natural deposits; water additive that promotes
Added	mg/L	2.0	1	0.1	Average	Not added	Not added	0.6	0.7	0.7	strong teeth; discharge from fertilizer and aluminum factories
					Range	0.18 - 0.20	0.69 - 2.10	ND - 0.40	ND	ND	Runoff & leaching from fertilizer use; leaching from
Nitrate as N	mg/L	10	10	0.4	Average	0.2	1.3	ND	ND	ND	septic tanks and sewage; erosion of natural deposits.
Copper (d)	mg/L	1.3 (AL)	0.3	0.05			for 53 homes : centile for 53 h		Internal corrosion of household plumbing; leaching of wood preservatives; erosion of natural deposits.		
Copper (d)	mg/∟	1.5 (AL)	0.3				e for 53 homes				Internal corrosion of household plumbing; discharges from
Lead (d)	µg/L	15 (AL)	0.2	5		0	ercentile for 53				industrial manufacterers; erosion of natural deposits.
MICROB	IOLOG	iICAL									
Total Coliform					Range Distribution System = ND - Present						Naturally present in the
Bacteria (e)	%	5	(0)	NA	Average		Distri	bution Syster	n = ND		environment.
RADIOL	OGICA	L (f)									
					Range	ND	NA	ND - 4	ND - 3	ND	
Gross Alpha	pCi/L	15	(0)	3	Average	ND	5.5	ND	ND	ND	Erosion of natural deposits.
Oraca Data		50	(0)		Range	NA	NA	4.9 - 5.1	5 - 8	ND	Decay of natural and man-made
Gross Beta	pCi/L	50	(0)	4	Average Range	NA NA	NA 4.3 - 5	5 ND	7 ND - 2	ND ND	products.
Uranium	pCi/L	20	0.43	1	Average	1.10	4.3 - 5	ND	2 ND - 2	ND	Erosion of natural deposits
Combined					Range	NA	NA	ND	ND	ND - 0.43	
Radium	pCi/L	5	0	1	Average	0.42	2.76	ND	ND	0.2	Erosion of natural deposits
Disinfect	ion by	Product	ts (DBP)								
Total		(RAA)			Distribution System wide range = 0.04 - 3.7						Drinking water disinfectant added
Chlorine (g)	mg/L	[4.0]	[4.0]	NA		Distribution System highest RAA = 2.6					for treatment
		(LRAA)					ution System v	-		By-product of drinking water	
	µg/L		NA	1	Distribution System highest LRAA = 9.3						
	10/		NΔ	1							
HAA5 (h) Total Trihalo- methanes (h)	μg/L μg/L	60 (LRAA) 80	NA NA	1		Distri Distribu	bution System	n highest LRA. vide range = 6	A = 9.3 .1 - 36.8	disinfection. By-product of drinking water disinfection.	

*Footnotes on page 7

The data tables above and on the following page list all the substances that were detected in the drinking water during 2022 or the most recent sampling within the last five years. The presence of these substances does not necessarily constitute a health risk. The tables contain the name of each substance, unit of measurement, highest level allowed, ideal goals, detection level, amount detected and the usual source of the substance. Some substances are not tested each year because the concentrations do not vary significantly from year to year. For these substances, the tables include data from the most recent testing completed.

2022 Report of Detected Compounds



		MCL [MRDL]		State DLR	Range Average			Source Wat	ers		
	Unit		PHG (MCLG) [MRDLG]			R.A. Weese surface water	MBGPF water	SDCWA surface water	MWD surface water	Carlsbad Desalination Plant	Sources in Drinking Water
SECOND	ARY ST		RDS /	Aesth	etic Stan	dards					
					Range	89 - 100	102 - 126	NA	98 - 106	20 - 119	Runoff/leaching from natural
Chloride	mg/L	500	NA	NA	Average	95	112	110	102	90	deposits; seawater influence
					Range	ND	ND - 3	ND	1 - 2	ND	
Color	Units	15	NA	NA	Average	ND	ND	ND	2	ND	Naturally occurring organic materials
					Range	ND	ND	NA	NA	ND	
Odor	Units	3	NA	NA	Average	ND	ND	ND	1	ND	Naturally occurring organic materials
					Range	170 - 230	116 - 140	210 - 220	206 - 229	13 - 15	Runoff/leaching from natural
ulfate	mg/L	500	NA	NA	Average	206	128	217	218	14	deposits; industrial wastes
otal Dissolved					Range	NA	NA	NA	591 - 651	138 - 285	Runoff/leaching from natural
olids	mg/L	1000	NA	NA	Average	480	430	610	621	211	deposits
urbidity (i)	Units	5	NA	NA			bution System ibution Systen	•			Soil runoff
anorary (i)	Ginto	Ŭ	101	101	Range	NA	ND - 7	ND	ND	ND	
langanese	µg/L	50	NA	NA	Average	NA	1.3	ND	ND	ND	Leaching from natural deposits
UNREGUL	ATED C	ONTAN	INANTS	s (UCI							
langanese			NIA		Range	ND	NA	NA	NA	NA	
	µg/L	NA	NA	NA	Average	ND	0.97	NA	NA	NA	Leaching from natural deposits
IAA9		Range Distribution System wide range = 10 - 3 Average Distribution System wide average = 23								By product of drinking water	
					Average				· · · · ·		chlorination.
otal Organic			NIA		Range	NA 2.6	NA	NA NA	NA NA	NA NA	
Carbon (k)	mg/L	NA	NA	NA	Average		NA				Naturally occuring element
Bromide (k)			NIA		Range	NA	NA	NA	NA	NA	Network a second and a second
	µg/L	NA	NA	NA	Average	58.0	NA	NA	NA	NA	Naturally occuring element
ADDITION	AL PAR	AMETE	RS								
Alkalinity					Range	112 - 137	84 - 98	NA	119 - 128	46-87	
s CaCO ₃	mg/L	NA	NA	NA	Average	128	87	130	124	61	Leaching from natural deposits
					Range	NA	NA	NA	NA	400 - 810	Fertilizer and pesticide runoff;
loron	µg/L	1000(NL)	NA	100	Average	NA	NA	130	130	590	Leaching from natural deposits
					Range	54 - 79	43 - 58	67 - 68	63 - 71	17 - 30	
Calcium	mg/L	NA	NA	NA	Average	69	49	68	67	21	Leaching from natural deposits
					Range	19 - 27	22 - 30	NA	24 - 26	0.95 - 1.6	
<i>l</i> lagnesium	mg/L	NA	NA	NA	Average	24	25	25	25	1.3	Leaching from natural deposits
					Range	7.9 - 8.4	8.0 - 8.4	8.0 - 8.7	8.1 - 8.2	8.3 - 8.7	Measure of the acidic or basic
Н	pH units	NA	NA	NA	Average	8.1	8.2	8.3	8.2	8.5	character of water.
					Range	NA	NA	NA	96 - 103	53 - 65	Salt present in the water,
odium	mg/L	NA	NA	NA	Average	82	73	98	100	59	usually naturally occuring
otal					Range	210 - 310	200 - 270	NA	263 - 282	42 - 76	Sum of magnesium and calcium,
lardness	mg/L	NA	NA	NA	Average	273	227	270	272	52	naturally occuring in the environment
Fotal	grains/				Range	12 - 18	12 - 16	NA	15 - 16	2 - 4	Sum of magnesium and calcium,
lardness		NA	NA	NA	Average	16	13	16	16	3	naturally occuring in the environment

Contaminants in Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally- occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity. **Contaminants that may be present in source water include the following . . .** **Microbial contaminants** such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants such as salts and metals that can be naturallyoccurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Organic chemical contaminants including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.

Radioactive contaminants that can be naturally-occurring or the result of oil and gas production and mining activities.

City's Treated Water Information



Fluoride

Oceanside has three sources of water: raw water that is treated at the R.A. Weese water treatment plant, groundwater that is treated at the MBGPF and treated water purchased from SDCWA. Oceanside does not add fluoride during treatment at R.A. Weese or the



MBGPF. The fluoride found in these raw water sources is naturally occurring. Only the imported treated water has added fluoride by the SDCWA. The area south of Oceanside Blvd. usually receives this fluoridated water with an average concentration of 0.7 ppm. The water delivered to all other areas in the City usually has an average fluoride level of 0.36 ppm. However, when the City's treatment plants are not operating at full capacity, some or all of the water supply for Oceanside can contain added fluoride up to a maximum of 0.8 ppm.

Lead

The City's drinking water is tested for lead every three years and was last tested in 2021. Samples were collected inside fifty-three private homes and at the entry points to the water distribution system. There was no lead detected in the water entering the distribution system, and one detection of lead in a private residence, which was under the Action Level. All homes were under the 90th percentile limit and compliant with the action level. Lead in drinking water is primarily from materials and components associated with private property service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Oceanside is responsible for providing high quality drinking water but cannot control the variety of materials used in home plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Drinking Water Disinfection

It is important to disinfect treated drinking water in order to destroy pathogens that can make people sick. The disinfectant must be present in the drinking water system all the way to each home, business and industry. To achieve this long-lasting residual, the City uses chloramines to disinfect the drinking water from each source. **Chloramines provide a stable residual throughout the distribution system delivering safe drinking water to each of our customers.**



Utilities Commission Meetings

The Oceanside Utilities Commission meets bi-monthly in the City Council Chambers at 300 North Coast Highway. The public is welcome to participate in these meetings. For more information, please call (760) 435-5800.



Terms and Abbreviations

AL - Regulatory Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

DLR - Detection Limit for purposes of Reporting, the lowest level that can be reliably detected and quantified.

Grains Per Gallon - is a unit of water hardness defined as 1 grain (64.8 milligrams) of calcium carbonate dissolved in 1 US gallon of water (3.785 liters). It translates to 17.1 parts per million.

HAA5 - Sum of Five Regulated Haloacetic Acids (HAAs), i.e., Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid.

HAA9 - Sum of Bromochloroacetic Acid, Bromodichloroacetic Acid, Chlorodibromoacetic Acid, Dibromoacetic Acid, Dichloroacetic Acid, Monobromoacetic Acid, Monochloroacetic Acid, Tribromoacetic Acid, and Trichloroacetic Acid.

LRAA - Locational Running Annual Average

MCL - Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG - Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MRDL - Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal, The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA - Not Applicable or not specified

ND - Not Detected

NTU - Nephelometric Turbidity Units

pCi/L - Picocuries per liter, a measure of radiation.

PDWS - Primary Drinking Water Standard, *MCLs and MRDLs for* contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG - Public Health Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

RAA - Running Annual Average, the monthly average of all samples computed each quarter and averaged for four consecutive quarters.

TT - Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

Table Footnotes

a) Turbidity is a measure of the cloudiness of the water. We monitor it because it indicates the effectiveness of our filtration system. Treatment plant effluent turbidity is recorded every 15 minutes. The turbidity of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month. Turbidity for the Carlsbad Desalination Plant effluent is required to be less than or equal to 0.1 NTU in 95% of the measurements taken each month. Turbidity shall not exceed 1.0 NTU at any time.

b) Aluminum also has a secondary MCL of 2 mg/L.
c) MWD started fluoridation treatment in 2007.
Some MWD water is used to supplement
Oceanside's treated water. Oceanside does not currently fluoridate during treatment.

d) Lead and Copper are sampled every three years at consumer's taps and was last sampled in 2021. If the Action Level is exceeded in 10% of the samples (90th percentile) then the water supplier must modify the treatment process to prevent the leaching of these metals into the water from the plumbing. None of the samples exceeded the Action Levels.

e) No more than 5.0% of all monthly samples taken in the distribution system may be Total Coliform positive. In 2022 there were 1,615 samples taken throughout the City and one was positive. All repeat samples were negative.
f) Some locations are analyzed up to every nine years. Oceanside and SDCWA sampled for radiological constituents in 2020. Uranium at MBGPF was sampled in 2022. MWD sampled quarterly for gross beta and annually for tritium and strontium-90; all remaining constituents were sampled in 2020.

g) Compliance is based on a running annual average (RAA) of 30 distribution system samples taken each month. The City of Oceanside uses chloramines for disinfection.

h) Compliance is based on a locational running annual average (LRAA) of 8 distribution system sample locations taken every quarter.

i) Turbidity is also tested at 30 locations each month within the distribution system and reported under Secondary Standards.

j) UCMR4 = Unregulated Contaminants Monitoring Rule 4. The EPA requires monitoring in order to determine if there is a need to regulate these compounds. Testing for R.A. Weese and MBGPF was completed in 2018 and 2022. All 2022 samples were non-detect, and only 2018 values are reflected in the table.

k) Total Organic Carbon and bromide results were collected from Weese source water.



Drought and record rainfall can occur all in one year. Unpredictable weather patterns are expected to continue so we need to manage and save water **now** for drier times.

Everyone can look for ways to be more efficient with water. We do our part by working every day to keep our supplies intact, maximizing our infrastructure investments, and delivering safe, reliable drinking water throughout the City.

Oceanside continues to invest in our infrastructure to help support our water supply. Here are some of the ways our City is making strides:



Pure Water Oceanside is up and running! Pure Water Oceanside purifies recycled water to create high-quality, drinking water to be injected into our local aquifer. Doing so helps Oceanside diversify its water supplies and reduce reliance on imported water.



Oceanside is expanding its recycled water system by adding miles of purple pipe throughout our City. Recycled water is treated to strict standards to ensure public health and safety, and will be able to be used for golf courses, parks, agriculture and landscaping.



New WaterSmart meters have been installed throughout the City of Oceanside. The WaterSmart meters are able to provide water use information, identify leaks or unusual water patterns and help streamline customer service!







Here are some ways **you can help** protect our valuable water resources:

- Water your plants, not the sidewalk or driveway
- Fix leaks and breaks as soon as they are discovered
- Receive a rebate to replace your unused turf with California-friendly plants. Visit www.socalwatersmart.com
- Group plants based on their water needs
- Get landscape inspiration and guidance by attending a workshop and talking to landscape professionals for free at **www.watersmartsd.org**

Know your water use

Log into the WaterSmart portal for personal information on how your household or business uses water. You'll find your hourly use uploaded once per day. You'll also find tips on looking for and fixing leaks, and comparisons to typical water users. Visit **www.0ceanside.WaterSmart.com**.

Even more resources!

- For free water use surveys for your home or business, visit www.waterefficiencysurvey.com
- For rebates on high efficiency toilets, irrigation controllers, and more visit www.socalwatersmart.com